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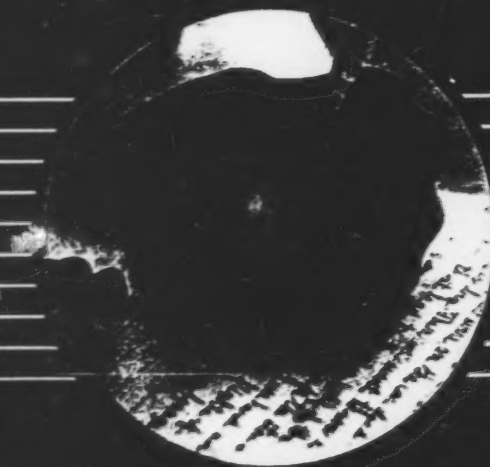
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ABSTRACT

This booklet is an explanation of what the Alaska High School Graduation Qualifying Examination means to Alaskans and how it fits into a larger school accountability reform initiative. The high school class of 2002 is the first group of students who will need to pass the High School Graduation Qualifying Examination to receive a high school diploma. Those who do not pass the examination will receive only a certificate of attendance. This booklet contains: (1) an overview of the examination; (2) frequently asked questions, with answers; and (3) sample test questions for reading, writing, and mathematics. The assessment timeline is also included. (SLD)

ED 458 286

Alaska High School Graduation Qualifying Examination Booklet



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State of Alaska
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*D*ear Alaskans,

The Alaska High School Class of 2002 is the first group of students who will need to pass the Alaska High School Graduation Qualifying Examination. Those who pass will receive a high school diploma. Those who do not pass will not receive a diploma. Instead, they will get a certificate of attendance.

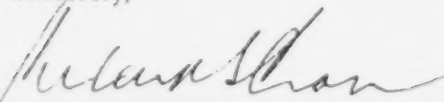
Possessing a graduation diploma obviously holds tremendous importance to a student's later life. Not possessing one paints a bleak future.

This booklet is an explanation of the examination—what it means to Alaskans and how it fits into a larger school accountability reform initiative. It is meant to help prepare students, parents and educators for the examination to come. It also contains sample test questions.

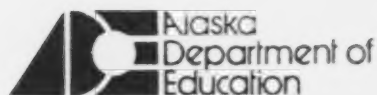
Many Alaskans have worked very hard—and continue to work hard—to make this examination an effective measure of what our children know and are able to do in reading, writing, and math, which are the subjects the examination will test. To succeed at this task, schools are changing many of the old ways of doing things. They are learning to set high, clear standards; to teach core basic subjects more effectively; to intervene vigorously and precisely when students are not reaching the standards; and to work cooperatively with parents to make sure every child learns.

It is my hope that every Alaska student passes the examination. For that to happen, all of us have a lot of work to do. Together, we can do it—for our children, we must.

Sincerely,



Richard S. Cross
Commissioner of Education



The reading passages, test items, and scoring guides in this publication are representative only and should not be interpreted as exact duplicates of the passages and items that may appear on the Alaska HSGQE, nor the scoring guides used to score them. Authority for final approval of all test items and testing materials rests with the Alaska Department of Education.

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OVERVIEW

The Legislature passed a law in 1997 that directed the Department of Education to develop the Alaska High School Qualifying Examination. One year later, the Knowles Administration convinced the Legislature to pass another law to make the qualifying examination a part of a greater system of accountability, standards and assessments for our schools. This school accountability measure is now known as the Quality Schools Initiative.

Under the Quality Schools Initiative, each school will be required to do a number of things aimed at increasing the quality of schools and the quality of schooling that our children receive. The Quality Schools Initiative will:

- require schools to chart a developmental profile for each child when entering kindergarten or first grade to discover early on the strengths and improvement areas;
- require schools to adopt state-mandated academic standards in reading, writing, and math;
- require schools to administer at the 3rd, 6th and 8th grades assessments to measure whether each student is meeting the reading, writing, and math standards. The results will be used to help schools and parents know which students are falling behind and which students need intervention to bring them up to standards;
- require all schools to report certain information to their communities and the State of Alaska about students and their progress;
- require low performing schools to work with their communities to create and put in place school improvement plans aimed at helping the school and students reach the standards; and
- require each high school student, beginning with the Class of 2002, to pass the Alaska High School Graduation Qualifying Examination.

The State Department of Education is currently working with a commercial test publisher, CTB/McGraw-Hill, to develop the examination. Many of our schools and students were scheduled to field test the examination questions during March 3-5, 1999. The first "real" examination will be administered in March 2000.

Also on March 2-4, 1999 the Department of Education was scheduled to field test the Alaska Benchmark Examinations at the 3rd, 6th and 8th grades. Those examinations will measure whether students are meeting "benchmark" standards in reading, writing, and math. By doing well on the Benchmark Examinations, students will know they are on track to pass the High School Graduation Qualifying Examination.

The following pages are intended to give you a better understanding of the High School Graduation Qualifying Examination.

Frequently Asked Questions

QA What is the Alaska High School Graduation Qualifying Examination?

In 1997, the Alaska Legislature enacted a law requiring all Alaska high school students to pass an examination in reading, writing, and mathematics before they can receive a high school diploma. Students must pass this examination in addition to completing all course requirements. Students who do not pass the examination will receive a certificate of attendance but not a diploma.

QA When do students have to start taking the High School Graduation Qualifying Examination?

Beginning with the graduation Class of 2002, all students must pass the High School Graduation Qualifying Examination. The freshman class of 1998-99 will be the first class required to pass the examination before their high schools can award them a diploma.

QA What will be measured on the examination?

The High School Graduation Qualifying Examination will consist of three tests: reading, writing, and mathematics. The test questions will be based on the Alaska Student Performance Standards in reading, writing, and mathematics.

QA Who is going to develop the High School Graduation Qualifying Examination?

The Alaska Department of Education has contracted with CTB/McGraw-Hill, a highly qualified commercial test publisher, to develop, score, and scale the test questions.

QA How will Alaskans know whether the examination is appropriate for students in our state?

The State Board of Education has appointed several committees of Alaskans to review the work of the test publisher during the development of the examination. The committees have made sure the examinations are fair for all students in Alaska and that they measure the reading, writing, and mathematics standards that Alaskans expect their young people to know and be able to do by the time they graduate from high school. The committees have also looked at such issues as test bias and alignment with the Alaska Student Performance Standards.

Q When will the High School Graduation Qualifying Examination be administered?

A The examination will be administered twice each school year, once in the fall and once in the spring.

Q When can students first take the High School Graduation Qualifying Examination?

A Students may take the High School Graduation Qualifying Examination for the first time in the spring of the 10th grade. Beginning in the spring of 2000, the High School Graduation Qualifying Examination will be offered twice a year, once in the spring and again each fall.

Q How long will students spend taking the examination?

A A time limit will not be set for finishing the examination. Students will have as long as they need to complete it. However, most students can expect to spend two to three hours to complete each of the three tests. One test per day will be administered over a three day period.

Q How will students find out about the examination results?

A The Alaska Department of Education will coordinate the administration, scoring, and reporting of the High School Graduation Qualifying Examination. Following the administration and scoring of the examinations, the department will send individual results to students, their parents, and to the schools and school districts. The reports will show the parts of the examination each student passed or failed, and provide additional information on the student's strengths and weaknesses within the areas of reading, writing, and mathematics.

Q What happens if a student fails the High School Graduation Qualifying Examination?

A Students can retake the parts of the examination they do not pass the first time. They can retake parts of the examination during their junior and senior years, and twice per year for as long as three years after leaving high school.

Q How will students be helped if they fail a portion of the examination?

A High schools across the state will develop courses and alternate instructional programs for students who fail a portion of the examination. The courses will be designed to make sure students learn the essential knowledge measured on the examination.

Q Will there be any financial cost to parents or students for taking the examination?

A No.

QA Are students who pass the entire examination the first time they take it considered eligible for high school graduation?

No. In addition to passing the High School Graduation Qualifying Examination, students must also complete all course requirements in order to obtain a diploma.

QA What is considered a passing score on the examination?

The passing score will be determined upon analyzing the data from the first time the test is administered. A committee of Alaska educators will participate in that procedure, in consultation with research scientists from the test publisher.

QA What kinds of questions will be on the examination?

There will be three types of questions in each of the three tests: multiple-choice, short constructed-response, and extended constructed-response. Multiple-choice questions will have four answer choices; students will select the correct answer and fill in an answer bubble. For constructed-response questions, students will write their answers to the questions on lines provided in the test book. Short constructed-response items may require a few words, phrases, or sentences; that a problem be solved, or a form or chart be completed. These questions may take two to five minutes to complete. Extended constructed-response items may require students to write a paragraph, an essay, or to complete a multi-step task. These questions may take five to fifteen minutes to complete; the essay may require about an hour to complete. Constructed-response questions in mathematics will require students to show their work.

QA How will the constructed-response questions be scored?

For each question, there will be a scoring guide that consists of an example of a response and describes the performance criteria for each of the score points possible for that question. These scoring guides will be reviewed in advance by a committee of Alaska educators and field-tested along with the questions. The examination will be scored by professional raters who will be trained on the use of the High School Graduation Qualifying Examination scoring guides in order to apply them consistently on all papers. Some questions, such as the essay, will also have samples of actual papers, written by Alaska high school students during the field test administration, that have been identified as examples or models for score points on the writing scoring guide.



SAMPLE TEST QUESTIONS

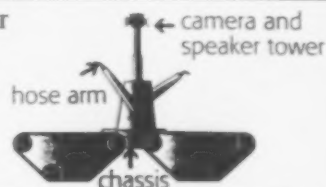
The next section of this booklet contains sample test questions and scoring guides of the type that will be on the High School Graduation Qualifying Examination. These are sample questions only and are not actual passages, items, or scoring guides that will be used in the administration or scoring of the examination. See how many questions you can answer correctly.

READING

Sample Test Items for Reading

Read this passage about a robotics technician/firefighter and her robot partner. Then do Numbers 1 through 4.

A Fearless Partner



"Nelson, stop!" Keisha looked carefully at her closed-circuit screen. The images on her screen were distorted by smoke and heat-rippled air, but Keisha could still make out the large metal door leading to the assembly room about twenty feet ahead of Nelson's current position.

The door itself was closed. Good. That meant the workers trapped inside the assembly room might still be okay, if they had managed to secure the door before too much smoke and toxic fumes had entered their area. Keisha would have to be very careful about opening the door.

"Nelson, go!"

"Where?" the robot asked. His voice was mechanical and odd. Keisha would have laughed at his response, but she knew the situation was serious.

"Sorry," she said. Her apology was lost on the robot, of course, but she continued, "Nelson, go forward!" Nelson had been thoroughly programmed with Keisha's own voice frequencies, but she still pronounced each syllable with care.

The robot lurched ahead and quickly reached the door. He came to a halt. On Keisha's next order, he did a complete 360-degree scan of the corridor he had just traversed. His thermal imaging system quickly mapped out the hot spots, which showed up as bright shades of fluorescent green on Keisha's screen. As he made the next scan of the corridor, Keisha gave Nelson the order to spray fire retardant foam on the hot spots. That done, she moved the robot back a few paces and ordered it to spray cold water on the assembly room door. Clouds of

steam billowed up, hiding everything for a few seconds. By then the door had cooled enough for humans to touch.

Using Nelson's built-in loudspeaker, Keisha called out to the trapped workers. "HELLO! CAN YOU HEAR ME? IF YOU ARE ABLE TO REACH THE DOOR, TRY TO OPEN IT."

Without waiting for a response, Keisha began to raise Nelson's caterpillar treads to a vertical position. In this way, he would be able to go through the doorway and make the necessary 90-degree turn in the narrow hallway beyond. In the vertical mode, Nelson had a much shorter base, but he was also a full four feet taller. Keisha lowered Nelson's periscopic sight arm even as his wheel base was collapsing into a compact triangular shape.

All she could do now was wait. In her anxiety, a thousand thoughts flashed through her mind. She remembered her training as a robotic technician. She thought about the day she first "met" Nelson. Keisha had read about the development of fire-fighting robots like Nelson, but she never dreamed that one day she would be working with one of the latest models. Together Keisha and Nelson had put out several fires, mostly small but intense and dangerous chemical blazes like this one. This, however, was the first time that other people's lives were at stake.

Only a few seconds had passed, but Keisha's anxiety was reaching the breaking point. She was about to order Nelson to break the door down, when she saw the door handle turning slowly. Then the grimy face of a worker appeared in the opening. "Nelson, old pal, we're sure glad to see you."

Sample Test Items for Reading

Nelson is sent alone into the area that is on fire because

- A there aren't enough human firefighters
- ✓ B the situation is physically dangerous for humans
- C Keisha thinks it's too late to save the trapped workers
- D Keisha wants to show off Nelson's abilities

READING STANDARD: Students can summarize information or ideas from a text.

This item assesses the student's ability to relate information from the text ("Nelson is sent alone into the area that is on fire") with a summary that "the situation is physically dangerous for humans." Other items may focus on locating evidence in a text that supports a main idea or theme in the text.

The way the author writes this story creates a feeling of

- A sorrow
- ✓ B suspense
- C remorse
- D indifference

READING STANDARD: Students can analyze and evaluate how authors use narrative elements and tone in fiction for specific purposes.

In this item, the student must demonstrate an understanding of the element called "mood." Other items may focus on plot, setting, character, or character actions.

The information in this passage could help you answer which of these questions?

- A What causes fires to break out in modern factories?
- B Why should firefighters fight toxic fires with foam?
- ✓ C How has modern technology helped save lives in the workplace?
- D Where can one learn about robot technology?

READING STANDARD: Students can make connections between summarized information or sets of ideas and related topics or information.

This item assesses the student's ability to formulate questions as a strategy for connecting the text to the larger world. Other items may ask the student to connect information across texts or to critique the logic of an argument made in a text.

"HELLO! CAN YOU HEAR ME? IF YOU ARE ABLE TO REACH THE DOOR, TRY TO OPEN IT."

On the lines below, explain why these sentences are capitalized. Relate your answer to the situation in the story where the sentences appear.

READING STANDARD: Students can analyze the rules (conventions) of the four genres of fiction (short story, drama, novel, and poetry) and the techniques used in these genres.

This item assesses the student's understanding of a technique used by the author to communicate sound and urgency. Other items may assess other literary conventions and techniques used by an author or poet.

Sample Scoring Guide for Reading #4

SCORING GUIDE

Score Points: 2 points

- 1 point for explaining that the capitalized sentences suggest that Keisha is screaming or speaking loudly
- 1 point for explaining that Keisha is trying to get the trapped workers to hear her. She is speaking loudly because she is very anxious and/or not sure how far Nelson's loudspeaker will carry.

Exemplary Response:

- Capitalization is used to emphasize what Keisha is saying. She is probably shouting because she wants to make sure the trapped workers hear her, and she is very worried about them.

WRITING

Sample Test Items for Writing

A student who read "A Fearless Partner" wrote the following paragraph. The paragraph has six mistakes in grammar, capitalization, and punctuation. Draw a line through each part that has a mistake, and write the correction above it.

Last year I ~~participate~~ ^{participated} in a vocational work-study program. Part of the program was helping to supervise a robot that assembled automobiles on an assembly line. The other part of the program ~~were~~ ^{was} a series of classes in math and computer programming. I ~~take~~ ^{took} the classes because I was working with the computers that controlled the robots on the assembly line.

I really enjoyed participating in the ~~program~~ ^{program because}. I learned a lot. When I graduate next year, I will be qualified to apply for a full-time job as an Industrial Robot ~~production~~ ^{Production} Technician. I'm looking forward to a career in this field. One day I would like to design, build, and ~~programming~~ ^{program} robots for the automobile industry.

WRITING STANDARD: Students can use the conventions of standard English independently and consistently, including grammar, sentence structure, paragraph structure, punctuation, spelling, and usage.

This constructed-response editing item requires the student to proofread and correct errors in grammar, capitalization, and punctuation, a process similar to what students do when editing their own writing. Note that the corrections are shown on the item; students will be given only the error-riddled text.

Sample Scoring Guide for Writing #1

SCORING GUIDE

Score Points: 6 points

1 point for making each of the corrections noted on the above item:

- “participate” should be past tense: “participated”
- “were” should be singular: “was”
- “take” should be past tense: “took”
- “program, I” is a comma splice, or run-on sentence; of several ways to correct it, one is shown
- “production” should be capitalized because it is part of a title
- “programming” should be “program” to be parallel with “design” and “build”

Here are two sentences related to the passage:

Nelson was an average-sized robot.

The robot traveled on caterpillar treads that helped him go almost anywhere.

Select the answer choice that best combines the two sentences into one.

- A** Nelson was an average-sized robot, and traveling anywhere on caterpillar treads.
- B** Nelson was average sized, which helped the robot travel on caterpillar treads almost anywhere.
- C** Nelson traveled on caterpillar treads, and was an average-sized robot, and could go almost anywhere.
- ✓ **D** Nelson, an average-sized robot, traveled on caterpillar treads that helped him go almost anywhere.

WRITING STANDARD: Students can revise writing to improve style, word choice, sentence variety, and subtlety of meaning in relation to the purpose and audience.

In this item, the student must combine two sentences into a coherent and concise new sentence. Other items may focus on distinguishing complete sentences from run-ons and fragments, and on recognizing and correcting such problems in sentence construction as non-parallel structures and misplaced modifiers.

The robot named Nelson helped Keisha save workers who were endangered by fire. Now think of a different kind of dangerous or difficult task, and on the lines below describe how a robot could help a human with that task. What would the robot do and how would it do its job?

- ✓ **For this answer, make sure you use complete sentences and check your work for correct spelling, capitalization, and punctuation.**

WRITING STANDARD: Students can write a coherent composition with a thesis statement that is supported with evidence, well-developed paragraphs, transitions, and a conclusion.

This extended constructed-response question requires students to generate a complete essay.

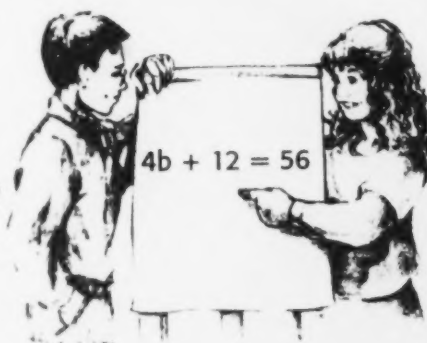
Unlike this sample item, the questions or "prompts" in the HSGQE will not be dependent on a reading passage. The students' essays will be scored using a scoring guide that contains sample responses, drawn from the work of Alaska students during the field test. Each student's essay will be assigned a single score ranging from 1 to 6; this score will be based on criteria that are consistent with other writing assessments in the state.

MATHEMATICS

Sample Test Items for Mathematics

Alex and Jessie were working on this equation during math class:
 $4b + 12 = 56$. Jessie plans to subtract 12 from both sides, then divide by 4. Alex plans to divide both sides by 4, then subtract 12. Which of these statements is true?

- ✓ **A** Only Jessie has a correct strategy
- B** Only Alex has a correct strategy.
- C** Both Jessie and Alex have a correct strategy.
- D** Neither Jessie nor Alex has a correct strategy.

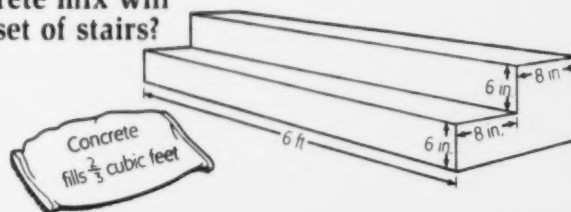


MATHEMATICS STANDARD: Students can create and solve linear and quadratic equations and inequalities.

At high school level, algebra problems measure the student's understanding of basic procedures and ability to apply algebraic principles in real-world contexts. The sample item focuses on a basic procedure for solving for an unknown.

How many bags of concrete mix will be needed to build this set of stairs?

- ✓ **A** 9 bags
- B** 6 bags
- C** 4 bags
- D** 13 bags



MATHEMATICS STANDARD: Students can use indirect methods, including the Pythagorean Theorem and right triangle trigonometry, to find missing dimensions.

Measurement items at high school level relate to real-world situations which often require the student to use indirect measurement, rate, and scale, and to use algebraic and geometric principles to find the dimensions of solid figures. Many of the items like this one are set in contexts of other content areas such as science, social studies, or manual arts.

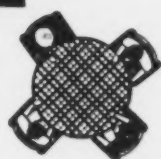


Table A

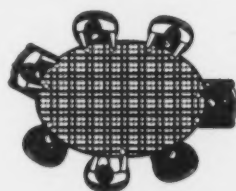
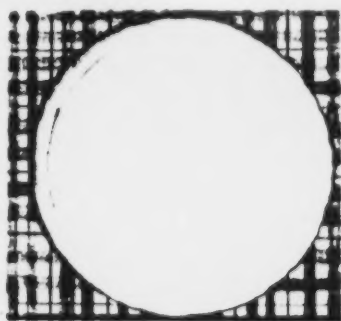


Table B

The people at Table A ordered a 12-inch pizza to share equally among them. The people at Table B ordered a 16-inch pizza also to share equally with everyone at their table. Who got more pizza, a person sitting at Table A or a person at Table B? Show your work and write your answer in the space below.



MATHEMATICS STANDARD: Students can use indirect methods, including the Pythagorean Theorem and right triangle trigonometry, to find missing dimensions.

Constructed-response items that measure the problem-solving objective generally relate to real-world situations that have elements of several mathematical content areas. The sample item requires the student to use procedures of measurement and algebra to devise a strategy that will lead to the solution of the problem.

Sample Scoring Guide for Mathematics #3

SCORING GUIDE

Score Points: 2 points

- 1 point for answering a person from Table B will get more pizza
- 1 point for valid process of determining pizza size for a person at Table A and Table B

Exemplary Response:

Accept any version of the following or an equivalent response:

- A person from Table B will get more pizza.
- Area for a 12-inch pizza at Table A = $3.14 \times 6^2 = 113.04$ sq. in.
size pizza per person = $113.04 \div 4 = 28.26$ sq. in.
- Area for a 16-inch pizza at Table B = $3.14 \times 8^2 = 200.96$ sq. in.
size pizza per person = $200.96 \div 7 = 28.71$ sq. in.

ASSESSMENT TIMELINE

March 2-4, 1999	Field-testing of the HSGQE
March 7-9, 2000	First operational examination (10th grade)
May 1-5, 2000	Setting the passing score
September 1, 2000	March 2000 examination results available to parents
October 3-5, 2000	Fall administration of HSGQE (11th grade)
December 1, 2000	October 2000 examination results available to parents
March 6-8, 2001	Spring administration of HSGQE (10th and 11th grades)
May 1, 2001	March 2001 examination results available to parents
October 2-4, 2001	Fall administration of HSGQE (11th and 12th grades)
March 5-7, 2002	Spring administration of HSGQE (10th, 11th and 12th grades)

ACKNOWLEDGMENTS

STATE OF ALASKA

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Fran Ulmer, Lieutenant Governor

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The following three committees composed of parents, teachers, public school administrators, and university professors have been working hard to make sure the High School Graduation Qualifying Examination meets the high standards and expectations of every Alaskan:

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